

# **HAZARDOUS AND SOLID WASTE AMENDMENTS**

## **VII. GENERAL CONDITIONS PURSUANT TO THE HAZARDOUS AND SOLID WASTE AMENDMENTS**

### **VII.A. STANDARD CONDITIONS**

#### **VII.A.1. Waste Minimization**

Annually, by March 1, for the previous year ending December 31, the Permittee shall enter into the operating record as required by LAC 33:V.1529.B.19, a statement certified according to LAC 33:V.513.A specifying that the Permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the Permittee to be economically practicable; and that the proposed method of treatment, storage, or practicable disposal method that is currently available to the Permittee minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to the Administrative Authority. The following criteria should be considered for the program:

**VII.A.1.a.** Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;

**VII.A.1.b.** Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;

**VII.A.1.c.** An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;

**VII.A.1.d.** Factors that have prevented implementation of source reduction and/or recycling;

**VII.A.1.e.** Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);

**VII.A.1.f.** An investigation of additional waste minimization efforts that could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

**VII.A.1.g.** A flow chart or matrix detailing all hazardous wastes the facility produces by quantity, type, and building/area;

**VII.A.1.h.** A demonstration of the need to use those processes that produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste;

**VII.A.1.i.** A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed;

**VII.A.1.j.** A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years; and

**VII.A.1.k.** The Permittee may meet the requirements for waste minimization by developing an Environmental Management System according to the EPA document, Integrated Environmental Management System Implementation Guide, EPA 744-R-00-011, October 2000, found on the EPA website at [www.epa.gov/opptintr/dfe/pubs/iems/iems\\_guide/index.htm](http://www.epa.gov/opptintr/dfe/pubs/iems/iems_guide/index.htm).

## **VII.A.2. Dust Suppression**

Pursuant to LAC 33:V.4139.B.4, and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

## **VII.A.3. Failure to Disclose**

The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts at any time may be cause for termination or modification of this Permit in accordance with LAC 33:323.B.2 and 3.

## **VII.A.4. Suspension, Modification, or Revocation and Reissuance, and Termination of Permit**

This Permit may be modified, revoked and reissued, or terminated for cause as specified in LAC 33:V.323. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

**VII.A.4.a.** If the Administrative Authority tentatively decides to modify or revoke and reissue a permit under LAC 33:V.321.C. or 323, a draft permit shall be prepared incorporating the proposed changes. The Administrative Authority may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.

**VII.A.4.b.** The Permittee may initiate permit modification proceedings under LAC 33:V.321.C. All applicable requirements and procedures as specified in LAC 33:V.321.C shall be followed.

**VII.A.4.c.** Modifications of this Permit do not constitute a reissuance of the Permit.

#### **VII.A.5. Permit Review**

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as provided for in LAC 33:V.321.C. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term.

#### **VII.A.6. Compliance with Permit**

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

**VII.A.6.a.** Become effective by statute;

**VII.A.6.b.** Are promulgated under LAC 33:V.Chapter 22 restricting the placement of hazardous wastes in or on the land; or

**VII.A.6.c.** Are promulgated under LAC 33:V.Chapters 23, 25 and 29 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, construction quality assurance (CQA) programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of LAC 33:V.321.C Class 1 permit modifications.

#### **VII.A.7. Specific Waste Ban**

**VII.A.7.a.** The Permittee shall not place in any land disposal unit the wastes specified in LAC 33:V. Chapter 22 after the effective date of the prohibition unless the Administrative Authority has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.

**VII.A.7.b.** The Permittee may store wastes restricted under LAC 33:V.Chapter 22 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of LAC 33:V.2205 including, but not limited to, clearly marking each tank or container.

**VII.A.7.c.** The Permittee is required to comply with all applicable requirements of LAC 33:V.2245 as amended. Changes to the Waste Analysis Plan will be considered permit modifications at the request of the Permittee, pursuant to LAC 33:V.321.C.

**VII.A.7.d.** The Permittee shall review the waste analysis plan and analyze the waste when a process changes to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record pursuant to Condition III.C.1 and 2.

#### **VII.A.8. Information Submittal for the Corrective Action Strategy**

Failure to comply with any condition of the Permit, including information submittals, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (LAC 33:V.323.B.3).

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required by this Permit using the Corrective Action Strategy are signed and certified in accordance with LAC 33:V.Chapter 5, Subchapter B. All submittals required under the corrective action strategy must conform to those requirements outlined in the RECAP (see Condition VIII of this permit). Variance from content and/or formatting guidelines provided under the RECAP shall be requested by the Permittee prior to submittal to the Administrative Authority, as deemed necessary. Approval or disapproval of such a request with further guidance on content and formatting will be provided by the Administrative Authority, as deemed necessary. Five (5) copies each of these plans, reports, notifications or other submissions and one (1) electronic copy (3.5" IBM compatible disk or CD-ROM) of all portions thereof which are in word processing format shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

**Louisiana Department of Environmental Quality  
Office of Environmental Assessment  
Environmental Technology Division  
P.O. Box 4314  
Baton Rouge, LA 70821-4314**

A summary of the planned reporting milestones pursuant to the corrective action requirements of this Permit is found in Condition VIII, Table 1.

#### **VII.A.9. Data Retention**

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

#### **VII.A.10. Management of Wastes**

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. As a response to the Louisiana legislature mandate La. R.S. 30:2272 (Act 1092 of the 1995 Regular Session) to develop minimum remediation standards, the LDEQ promulgated the Risk Evaluation Corrective Action Program (RECAP). RECAP's tiered approach to risk evaluation and corrective action establishes not only across the board numerical standards for most media, but also allows for the development of more site-specific numerical standards, as warranted. The Permittee is required to comply with all applicable requirements of RECAP. Approval of units for managing wastes and conditions for operating the units shall be granted through the permitting process.

#### **VII.B. EMISSION STANDARDS - PROCESS VENTS, EQUIPMENT LEAKS, TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (AA-BB-CC) AIR REGULATIONS)**

##### **VII.B.1. PERFORMANCE STANDARDS FOR EQUIPMENT LEAKS (RESERVED)**

##### **VII.B.2. STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (RESERVED)**

##### **TABLE VII.B.1. EMISSION CONTROLS FOR TANKS (RESERVED)**

##### **TABLE VII.B.2. EMISSION CONTROLS FOR CONTAINERS/CONTAINER STORAGE AREAS (RESERVED)**

#### **VII.C. SPECIFIC CONDITION - CLOSURE**

Pursuant to Section 3005(j)(1) of the Hazardous and Solid Waste Amendments of 1984, the Permittee shall close any closing units in accordance with the following provisions:

**VII.C.1.** Other than consolidation of any wastes from the sites in conformance with LAC 33:V.Chapter 22, Land Disposal Restrictions, the Permittee shall not place waste prohibited by LAC 33:V.Chapter 22 into any closing units;

**VII.C.2.** The Permittee shall perform unit closures in accordance with the Closure Plan(s) as approved at the time of closure, and which meet(s) all relevant State and Federal closure requirements at the time of closure; and

**VII.C.3.** The Permittee shall notify the Administrative Authority in writing at least sixty (60) days prior to commencement of closure.

## **VIII. SPECIAL CONDITIONS PURSUANT TO HAZARDOUS AND SOLID WASTE AMENDMENTS—CORRECTIVE ACTION STRATEGY**

Corrective Action for Releases: Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments (HSWA), and LAC 33:V.3322 require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit at the facility, regardless of when the waste was placed in the unit.

EPA's traditional RCRA corrective action approach is structured around several elements common to most activities. In the first phase, RCRA facility assessment (RFA), EPA or the authorized state assesses the facility to identify releases and determine the need for corrective action. In the second phase, RCRA facility investigation (RFI), the facility conducts a more detailed investigation to determine the nature and extent of contaminants released to ground water, surface water, air, and soil. If remedial action is needed, a third phase, corrective measures study (CMS), is started. During this phase, the facility conducts a study, which when completed, describes the advantages, disadvantages, and costs of various cleanup options. After selection of a final remedy, the fourth phase, corrective measures implementation (CMI), is initiated. The facility is required to design, construct, operate, maintain, and monitor the final remedy(s).

The Corrective Action Strategy (CAS) is an alternate corrective action approach that can be implemented during any phase of corrective action for a release area. The Permittee shall use the CAS approach as the framework for corrective action to clarify, facilitate and expedite the process, and shall use the **Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP)** for screening and media-specific cleanup standards. EPA has interpreted the term "release" to mean, "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." (50 FR 2873, July 15, 1985). The CAS refers to "release areas" as solid waste management units (SWMUs) and areas of concern (AOCs) while the RECAP refers to release areas as areas of investigation (AOIs). SWMUs and AOCs may also be referred to as "AOIs" when investigated and managed under the RECAP.

### **VIII.A. ALTERNATE CORRECTIVE ACTION**

#### **VIII.A.1. Introduction to CAS**

This Permit will utilize the CAS Guidance Document ([www.epa.gov/Arkansas/6pd/rcra\\_c/pd-o/riskman.htm](http://www.epa.gov/Arkansas/6pd/rcra_c/pd-o/riskman.htm)) developed by the U.S. Environmental Protection Agency (EPA) Region 6 whenever the Administrative Authority determines that it will serve to facilitate the corrective action. The CAS Guidance Document shall be utilized to the fullest extent practicable for planning and implementation of the corrective action. The CAS in this Permit shall not supersede existing Federal, State, and local regulations. The two primary objectives are to prioritize corrective action at the facility, and streamline corrective action administrative procedures, resulting in the protection of human health and the environment.

The CAS is a performance-based approach; using data quality objectives, investigations begin with the endpoint in mind. The CAS is a risk management strategy that can be implemented during any phase of corrective action. However, the CAS need not be applied to work that has already been completed to the satisfaction of the Administrative Authority. Performance standards are established at the beginning of the corrective action process, allowing earlier and more focused implementation. Releases are screened using RECAP screening numbers to determine the priority of corrective action, and remedial alternatives are selected on the basis of their ability to achieve and maintain the established performance standards.

There is no one specific path through the CAS process. The CAS is a facility-wide approach, focusing corrective action on releases that pose the greatest risk first. Screening releases will also enable some areas of interest to qualify for no further action at this time (Condition VIII.A.3.a.), thus resources can be used to best benefit the protection of human health and the environment. The CAS process also considers activities previously conducted under the traditional corrective action process. Appendix 1 of this permit contains a summary of corrective action activities completed to date and also describes where the Permittee is in the CAS process at the time of issuance of this permit. The applicability of various provisions of the CAS will depend on where the Permittee is in the CAS process as detailed in Appendix 1.

The traditional RCRA corrective action process and reports (i.e., RFIs, CMSs, CMIs, etc.) are not elements of the CAS. However, the use of information and reports from the traditional corrective action process, if available, is encouraged, in addition to new site-specific information.

The Administrative Authority, through an agency-initiated permit modification, may remove the CAS as the means of facility-wide corrective action in the case of the failure of the Permittee to disclose information, abide by the terms and conditions of this permit, adhere to agreed schedules, or show adequate progress; or should an impasse occur between the Permittee and the Administrative Authority. The Administrative Authority will institute other means of corrective action (such as traditional corrective action) at the facility through modification of this permit.

#### **VIII.A.2. Performance Standards**

Expectations for the outcome of corrective action at a facility are established in the CAS by three performance standards as defined in Conditions VIII.A.2.a through c. The Permittee's proposed performance standards shall be presented during the scoping meeting. The Permittee must justify the proposed performance standards through evaluation and documentation of land use, ground water designation (current and reasonably expected future use), types of receptors present, exposure pathways, etc.; as described in RECAP, Chapter 2. Through the application of the performance standards and RECAP, the Permittee and Administrative Authority shall determine whether a release must be addressed through corrective action, and whether implemented corrective actions are protective of human health and the environment.



The Permittee shall submit the performance standards in writing along with the Conceptual Site Model (Condition VIII.D) within one-hundred and twenty (120) days after the scoping meeting. The Administrative Authority may either approve the performance standards proposed by the Permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment.

The three CAS performance standards are defined below. The order in which the performance standards are listed does not indicate that one performance standard takes priority over another. All applicable performance standards must be achieved by the Permittee.

#### **VIII.A.2.a. Source Control Performance Standard**

Source control refers to the control of materials that include or contain hazardous wastes or hazardous constituents that act as a reservoir for migration of contamination to soil, sediment, ground water, surface water, or air, or as a source for direct exposure.

The facility must determine if source material is present. Removal, containment, treatment, or a combination of the three, must be evaluated on a case-by-case basis. Controlling source material is a predominating issue in the CAS, and must be addressed to ensure protectiveness over time. Prioritization of the SWMUs and AOCs does not mean avoidance of controlling source materials.

#### **VIII.A.2.b. Statutory and Regulatory Performance Standard**

Applicable statutory and regulatory requirements (Federal, State, and local) must be identified. These requirements may dictate media-specific contaminant levels (e.g., maximum contaminant levels (MCLs) in drinking water) that must be achieved and may become a performance standard for the Permittee.

#### **VIII.A.2.c. Final Risk Goal Performance Standard**

The final risk goal is the level of protection to be achieved and maintained by the Permittee. The final risk goal shall be based on site-specific issues including land use, special subpopulations, contaminant concentrations based on acceptable risk, location at which the levels are measured, and the remediation time frame, as specified by RECAP.

One final risk goal may apply to the entire facility, but it is more likely that different releases will require different final risk goals due to variations in location of releases, land use, proximity of receptors, etc. The final risk goal will be based on sound risk assessment methodologies (Condition VIII.A.3).

#### **VIII.A.3. Use of RECAP**

The latest edition of the RECAP document shall be used by the Permittee to determine the need for further corrective actions under this permit. The RECAP

consists of a tiered framework comprised of a Screening Option (SO), and three Management Options (MO). The tiered management options allow site evaluation and corrective action efforts to be tailored to site conditions and risks. As the MO level increases, the approach becomes more site-specific and hence, the level of effort required to meet the objectives of the Option increases.

The RECAP shall be used by the Permittee to evaluate data quality and data usability (RECAP Section 2.4 and 2.5), to determine the identity of an AOI as described in RECAP Section 2.6, and for estimations of Area of Investigation Concentrations and Groundwater Compliance Concentrations for each media as defined in RECAP Section 2.8.

The RECAP shall be used by the Permittee to evaluate land use as described in RECAP Section 2.9, and groundwater/aquifer use as described in RECAP Section 2.10.

The RECAP shall be used by the Permittee to prioritize AOCs, SWMUs, and AOIs that require remediation so site investigations are focused on the release areas that pose the greatest risk. As the CSM is compiled, the Permittee shall assess historical data (RECAP Section 2.5) and use the following management options, as appropriate, to address each release site.

#### **VIII.A.3.a. Screening Option**

The Permittee shall use the Screening Standards (SS) which are LDEQ-derived screening numbers for soil and groundwater for non-industrial and industrial land use scenarios. The SS shall be used to demonstrate that an AOI does not pose a threat to human health and the environment and, hence does not require further action at this time (NFA-ATT) or that further evaluation is warranted under a higher Management Option.

#### **VIII.A.3.b. Management Option 1**

The Permittee shall use Management Option 1 (MO-1) which provides a RECAP standard (RS) derived for non-industrial and industrial exposure scenarios using currently recommended default exposure parameters and toxicity values. Under MO-1, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-1 limiting RS, then the Permittee may; (1) remediate to the MO-1 limiting RS (and comply with closure/post closure requirements for MO-1), or (2) proceed with a MO-2 or MO-3 evaluation.

#### **VIII.A.3.c. Management Option 2**

The Permittee shall use Management Option 2 (MO-2) which provides for the development of soil and groundwater RS using site-specific data with specified analytical models to evaluate constituent fate and transport at the AOI. The results of this evaluation shall be used in conjunction with standard reasonable maximum exposure (RME) assumptions to identify site-specific MO-2 RS. Under MO-2, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or

compliance concentration detected at the AOI exceeds a MO-2 limiting RS, then the Permittee may; (1) remediate to the MO-2 limiting RS (and comply with closure/post closure requirements for MO-2), or (2) proceed with a MO-3 evaluation.

#### **VIII.A.3.d. Management Option 3**

The Permittee shall use Management Option 3 (MO-3) which provides the option of using site-specific data for the evaluation of exposure and the evaluation of environmental fate and transport at the AOI. The results of the site-specific evaluation may be to develop site-specific MO-3 RS. Under MO-3, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-3 limiting RS, then the Permittee shall; (1) remediate to the MO-3 RS, (2) conduct confirmatory sampling, and (3) comply with closure/post closure requirements for MO-3.

#### **VIII.A.4. Corrective Action for Releases Beyond Facility Boundary**

Section 3004(v) of RCRA as amended by HSWA, and State regulations promulgated as LAC 33:V.3322.C require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.

#### **VIII.A.5. Financial Responsibility**

Assurances of financial responsibility for corrective action shall be provided by the Permittee as specified in the Permit following major modification for remedy selection. The Administrative Authority reserves the right to require financial assurance prior to remedy selection based upon facility compliance history, the extent and degree of contamination, financial health of the Permittee, and input from the public.

#### **VIII.A.6. Summary of Corrective Action Activities**

A summary of the corrective action activities associated with the facility is provided in Condition VIII, Appendix 1 of this permit. AOCs and SWMUs that are currently being managed or proposed for management under a prescribed corrective action program (e.g., groundwater order, corrective action order, CERCLA) are identified in Condition VIII, Appendix 1, Table 1 of this permit.

#### **VIII.A.7. Approval of Alternate Schedule**

The Permittee may submit a written request for an alternate schedule for a submittal deadline as presented in Condition VIII, Table 1. The request should propose a specific alternate schedule and include an explanation as to why the alternate schedule is necessary. The Administrative Authority will consider site-specific criteria in either approving or disapproving the request for an alternate schedule.

## **VIII.B. PROJECT DEVELOPMENT AND SCOPING MEETING**

### **VIII.B.1. Notice of Intent**

The Permittee must submit to the Administrative Authority a Notice of Intent to conduct corrective action using the CAS within sixty (60) days of the effective date of this permit (Notice of Intent submitted July 10, 2006). The notice of intent should state the following in a concise manner:

**VIII.B.1.a.** General information regarding facility location;

**VIII.B.1.b.** General information regarding the facility's operational history;

**VIII.B.1.c.** General discussion on how the Permittee will proceed through the CAS;

**VIII.B.1.d.** Brief description of proposed performance standards for corrective action; and

**VIII.B.1.e.** Propose a date for a scoping meeting between the Permittee and the Administrative Authority to be held within sixty (60) days of the date of the Notice of Intent.

### **VIII.B.2. Scoping Meeting**

The scoping meeting will serve as the first CAS milestone where the Permittee and the Administrative Authority identify expectations concerning CAS implementation. The length and extent of the meeting will depend on the complexity of the site. Agreements on land use, groundwater classification, the level of detail required in the conceptual site model (see Condition VIII.D) and expectations for remediation goals will be discussed during the scoping meeting(s). During the scoping meeting the Permittee will present the following information to the Administrative Authority:

**VIII.B.2.a.** A conceptual site model (if one already has been developed);

**VIII.B.2.b.** Discussions on history of corrective action at the facility, including facility investigations, risk evaluations or risk assessments, interim measure/stabilizations and final remedies implemented;

**VIII.B.2.c.** Proposed performance standards for the facility with justification, and potential risk management approaches;

**VIII.B.2.d.** Discussions on how the Permittee plans to use the CAS to meet its corrective action obligations, including permitting and compliance issues;

**VIII.B.2.e.** A Communication Strategy Plan that specifies where in the CAS process the Permittee is currently and how the Permittee will provide information about future progress at the facility to the Administrative Authority (i.e., progress reports, conference calls, routine meetings, etc.);

**VIII.B.2.f.** Site-specific concerns (i.e., sensitive environments or special subpopulations);

**VIII.B.2.g.** Need for interim measures or stabilization activities, if necessary; and

**VIII.B.2.h.** Schedule for submittal of the CAS Investigation Workplan and proposed schedule for conducting and completing CAS requirements, including public participation.

Information plans and reports that have already been developed by the Permittee during the corrective action process can be referenced during the scoping meeting. The Permittee must coordinate with the Administrative Authority in order to determine the date, time, and location of the scoping meeting.

### **VIII.C. REPORTING REQUIREMENTS**

**VIII.C.1.** The Permittee shall submit, in accordance with Condition VII.A.8, signed reports of all activities conducted pursuant to the provisions of this Permit as required by the Administrative Authority. The reporting schedule shall be determined on a case-by-case basis by the Administrative Authority. These reports shall contain, as applicable to the stage of corrective action, the information required by CAS, as well as the following:

**VIII.C.1.a.** A description of the work completed and an estimate of the percentage of work completed;

**VIII.C.1.b.** Summaries of all findings, including summaries of laboratory data;

**VIII.C.1.c.** Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;

**VIII.C.1.d.** Projected work for the next reporting period;

**VIII.C.1.e.** Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;

**VIII.C.1.f.** Changes in key project personnel during the reporting period; and

**VIII.C.1.g.** Summaries of all changes made in implementation during the reporting period.

**VIII.C.2.** Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports, drilling logs and laboratory data) shall be made available to the Administrative Authority upon request.

**VIII.C.3.** In addition to the written reports as required in Condition VIII.C.1 and VIII.C.2 above, at the request of the Administrative Authority, the Permittee shall provide status review through briefings with the Administrative Authority.

**VIII.C.4.** The determination and approval of remedy selections, schedules of submittals and minor changes to any corrective action workplans may be made by the Administrative Authority during the scoping meeting or status review briefings as described in Condition VIII.C.3.

#### **VIII.D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL (CSM)**

No later than 120 days after the scoping meeting, the Permittee shall submit to the Administrative Authority a CSM (along with the Performance Standards detailed in Condition VIII.A.2) or an update of any CSM submitted at the scoping meeting providing background information and the current conditions at the facility. The level of detail required for the CSM will be discussed during the scoping meeting. At a minimum, the CSM must address current site conditions, land use, known and/or potential constituent source(s), routes of constituent migration, exposure media (i.e., soil, surface waters, groundwater), exposure points, points of compliance and pathways, receptors and source media to be evaluated under the RECAP. The CSM must include a completed Figure 8 (LAC 33:1.Chapter 13). The Permittee may include completed investigations, existing data, or previously submitted documents in the CSM by reference. References must include the names, dates, and brief summaries of the documents.

If a CSM has been previously developed, the scoping meeting will also provide the opportunity for the Permittee and Administrative Authority to consider and identify all data gaps in the CSM. The initial CSM shall be considered the “base document” to be prepared and updated by the facility as new information is gathered during investigations. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and monitored natural attenuation determinations (RECAP Section 2.16), or technical impracticability (TI) waiver determinations, when appropriate.

The Administrative Authority reserves the right to require revisions to the CSM based upon data resulting from ongoing investigations and activities. Revisions to the CSM may also be required for newly identified SWMUs or AOCs according to Condition VIII.L of this permit (See Appendix 1, Ongoing Corrective Action) and based on new information and information not previously considered by the Administrative Authority.

The CSM shall be divided into Profiles as detailed in Conditions VIII.D.1 through 6. If the Permittee chooses to use existing data and documents in the CSM, it may not be necessary to prepare the Profiles as detailed in Conditions VIII.D.1 through 6. However, the existing documents and data must provide sufficient information and detail which corresponds to the information required by the Facility, Land Use and Exposure, Physical, Release, Ecological, and Risk Management Profiles.

#### **VIII.D.1. Facility Profile**

The Permittee shall include in the CSM a Facility Profile which shall summarize the regional location, pertinent boundary features, general facility structures, process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The Permittee shall also include historical features that may be potential release areas because of past management practices. The Facility Profile shall include:

**VIII.D.1.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.1.a.(1)** General geographic location;

**VIII.D.1.a.(2)** Property lines with the owners of all adjacent property clearly indicated;

**VIII.D.1.a.(3)** Facility structures, process areas and maintenance areas;

**VIII.D.1.a.(4)** Any other potential release areas shall be delineated, such as railcar loading/unloading areas or any other AOI as described in RECAP Section 2.6; and

**VIII.D.1.a.(5)** Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.

**VIII.D.1.b.** The Facility Profile shall also include a description of ownership and operation of the facility.

**VIII.D.1.c.** The Permittee shall provide pertinent information for those spills that have not been assessed and reported to the Administrative Authority during facility investigations, addressed by facility spill contingency plans, or previously remediated or deemed for no further action. The information must include at minimum, approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

#### **VIII.D.2. Land Use and Exposure Profile**

The Permittee shall include in the CSM a Land Use and Exposure Profile which includes surrounding land uses (industrial and non-industrial, as described in RECAP Sections 2.9.1 and 2.9.2), resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations (groundwater classifications as described in RECAP Section 2.10), natural resources (wetlands, etc.),

sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios, and applicable exposure pathways identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

**VIII.D.2.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.2.a.(1)** Surrounding land uses, resource use locations, and natural resources/wetlands;

**VIII.D.2.a.(2)** Locations of sensitive subpopulations; and

**VIII.D.2.a.(3)** An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors as depicted in Figure 8 (CMS example) of the RECAP.

### **VIII.D.3. Physical Profile**

The Permittee shall include in the CSM a Physical Profile which shall describe the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

**VIII.D.3.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.3.a.(1)** Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;

**VIII.D.3.a.(2)** Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;

**VIII.D.3.a.(3)** Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;

**VIII.D.3.a.(4)** Subsurface geology including stratigraphy, continuity (locations of facies changes, if known), faulting and other characteristics;



**VIII.D.3.a.(5)** Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity, and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and

**VIII.D.3.a.(6)** Locations of soil borings and production and groundwater monitoring wells, including well log information, and construction of cross-sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations (can be applied as an attachment).

#### **VIII.D.4. Release Profile**

The Permittee shall include in the CSM a Release Profile which shall describe the known extent of contaminants in the environment, including sources, contaminants of concern (COC), areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

**VIII.D.4.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V. Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.4.a.(1)** Estimations of source concentrations, exposure concentrations and compliance concentrations for each affected media as defined in Section 2.8 of RECAP;

**VIII.D.4.a.(2)** Isopleth maps depicting lateral extent and concentrations of COCs;

**VIII.D.4.a.(3)** Results of fate and transport modeling showing potential exposure concentrations and locations; and

**VIII.D.4.a.(4)** Locations of potential sources including past or present waste units or disposal areas and all SWMUs/AOCs.

**VIII.D.4.b.** Table(s) depicting the following information for each SWMU/AOC, including but not limited to: location; type of unit/disposal/release area; design features; operating practices (past and present); period of operation; age of unit/disposal/release area; general physical condition; and method of closure.

**VIII.D.4.c.** Table(s) depicting the following waste/contaminant characteristics for those areas referenced in Condition VIII.D.4.b, including but not limited to: type of waste placed in the unit (hazardous classification, quantity, chemical composition), physical and chemical characteristics (physical form, description, temperature, pH, general chemical class, molecular weight,

density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

#### **VIII.D.5. Ecological Profile**

The Permittee shall include in the CSM an Ecological Profile that shall describe the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile, current, as well as, future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

**VIII.D.5.a.** A history and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries;

**VIII.D.5.b.** A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways and landfill areas;

**VIII.D.5.c.** A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.;

**VIII.D.5.d.** A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COEC) to ecological receptors;

**VIII.D.5.e.** An ecological checklist as described in Section 7.0 of RECAP. An ecological checklist (presented in Appendix C, Form 18 of the RECAP) shall be used to determine if a tier 1 (screening level) Ecological Risk Assessment (ERA) is warranted.

#### **VIII.D.6. Risk Management Profile**

The Permittee shall include in the CSM a Risk Management Profile that shall describe how each AOI at the facility will be managed for the protection of human health and the environment. The Risk Management Profile will serve as documentation of the results of the site ranking system (described in Section 2.2 of RECAP). The Risk Management Profile will also document the criteria and verify that the SO, MO-1, MO-2 or MO-3 is appropriate for application at each AOI. The Risk Management Profile shall include:

**VIII.D.6.a.** A table for tracking the management options for each AOI, and the determination made, whether an AOI is deemed for no further action at this time (NFA-ATT) or is going to use either the SO, MO-1, MO-2 or MO-3 management option.

**VIII.D.6.b.** A list of identified site-wide data gaps for further investigation.

**VIII.D.6.c.** Documentation of all interim measures which have been or are being undertaken at the facility, including under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term remedial solution.

#### **VIII.E. INTERIM MEASURES**

**VIII.E.1.** If at any time during the term of this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU/AOC poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and an Interim Measures Workplan. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit. However, depending upon the nature of the interim measures, a permit modification may not be required.

**VIII.E.2.** The Permittee may propose interim measures at any time by submittal of an Interim Measures Workplan subject to the approval of the Administrative Authority.

**VIII.E.3.** The Administrative Authority shall notify the Permittee in writing of the requirement to perform interim measures and may require the submittal of an Interim Measures Workplan. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:

**VIII.E.3.a.** Time required to develop and implement a final remedy;

**VIII.E.3.b.** Actual and potential exposure to human and environmental receptors;

**VIII.E.3.c.** Actual and potential contamination of drinking water supplies and sensitive ecosystems;

**VIII.E.3.d.** The potential for further degradation of the medium in the absence of interim measures;

**VIII.E.3.e.** Presence of hazardous wastes in containers that may pose a threat of release;

**VIII.E.3.f.** Presence and concentration of hazardous waste including hazardous constituents in soil that has the potential to migrate to ground water or surface water;

**VIII.E.3.g.** Weather conditions that may affect the current levels of contamination;

**VIII.E.3.h.** Risks of fire, explosion, or accident; and

**VIII.E.3.i.** Other situations that may pose threats to human health and the environment.

**VIII.E.5.** Upon approval of the Interim Measures Workplan and completion of the interim measure(s) implementation, the Permittee will submit a report to the Administrative Authority describing the completed work.

**VIII.E.6.** At anytime during or after the interim measure(s), including the issuance of an NFA-ATT, the Administrative Authority may require the Permittee to submit the SWMUs/AOCs for further corrective action.

#### **VIII.F. CAS (CORRECTIVE ACTION STRATEGY) INVESTIGATION WORKPLAN**

**VIII.F.1.** The CAS Investigation Workplan that describes site investigation activities for corrective action shall be submitted to the Administrative Authority within 180 days after the scoping meeting between the Permittee and the Administrative Authority. The CAS Investigation Workplan must address releases of hazardous waste or hazardous constituents to all media, unless otherwise indicated, for those SWMUs/AOCs listed in Appendix 1, Table 1. The focus of the site investigation phase for corrective action is to collect data to fill in data gaps identified in the CSM. The corrective action investigations may be conducted in phases if warranted by site conditions, contingent upon approval by the Administrative Authority.

**VIII.F.1.a.** The CAS Investigation Workplan shall describe the management options (MO) for each AOI/release area, data quality objectives for achieving each management option, and proposals for release characterizations (sampling and analysis/quality assurance plans) to support the data quality objectives (DQOs). (DQOs are determined based on the end use of the data to be collected, and the DQO development process should be integrated into project planning and refined throughout the CAS implementation. DQOs shall be used to 1) ensure that environmental data are scientifically valid, defensible, and of an appropriate level of quality given the intended use, and 2) expedite site investigations. The CAS Investigation Workplan is required to have DQOs that are developed to support the performance standard for each release.) The CAS Investigation Workplan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the site investigations. The scope of work for the site investigation can be found in RECAP Appendix B.

**VIII.F.1.b.** The CAS Investigation Workplan shall describe sampling, data collection quality assurance, data management procedures (including formats for documenting and tracking data and other results of investigations) and health and safety procedures.

**VIII.F.1.c.** Development of the CAS Investigation Workplan and reporting of data shall be consistent with the latest version of the following EPA and State guidance documents or the equivalent thereof:

**VIII.F.1.c.(1)** Guidance for the Data Quality Assessment, Practical Methods for Data Analysis. QA97 Version EPA QA/G-9. January 1998;

**VIII.F.1.c.(2)** Guidance for the Data Quality Objectives Process. EPA QA/G-4. September 1994;

**VIII.F.1.c.(3)** Data Quality Objectives Remedial Response Activities. EPA/540/G87-003. March 1987;

**VIII.F.1.c.(4)** Guidance on Quality Assurance Project Plans. EPA QA/G-5. February 1998;

**VIII.F.1.c.(5)** Interim EPA Data Requirements for Quality Assurance Project Plans. EPA Region 6, Office of Quality Assurance. May 1994;

**VIII.F.1.c.(6)** 29 CFR 1910.120 (b) for the elements to Health and Safety plans;

**VIII.F.1.c.(7)** RCRA Groundwater Monitoring: Draft Technical Guidance EPA/530-R-93-001 November 1992;

**VIII.F.1.c.(8)** Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; SW-846, 3<sup>rd</sup> Edition. November 1992, with revisions;

**VIII.F.1.c.(9)** The LDEQ Handbook - Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the LDEQ and the Louisiana Department of Transportation and Development. This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245; and

**VIII.F.1.c.(10)** The LAC 33:I.Chapter 13 and Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP).

**VIII.F.2.** After the Permittee submits the CAS Investigation Workplan; the Administrative Authority will approve, disapprove, or otherwise modify the CAS Investigation Workplan in writing. All approved workplans become enforceable components of this Permit.

In event of disapproval (in whole or in part) of the workplan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the CAS Investigation Workplan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified workplan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the ground for the exception within fourteen (14) days of receipt of the disapproval.

**VIII.F.3.** The Administrative Authority shall review for approval, as part of the CAS Investigation Workplan or as a new workplan, any plans developed pursuant to Condition VIII.L addressing further investigations of newly-identified SWMUs/AOCs, or Condition VIII.M addressing new releases from previously-identified SWMUs/AOCs.

#### **VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS**

No later than fourteen (14) days after the Permittee has received written approval from the Administrative Authority for the CAS Investigation Workplan, the Permittee shall implement the site investigation activities according to the schedules and in accordance with the approved CAS Investigation Workplan and the following:

**VIII.G.1.** The Permittee shall notify the Administrative Authority at least 10 working days prior to any field sampling, field-testing, or field monitoring activity required by this Permit to give LDEQ personnel the opportunity to observe investigation procedures and/or split samples.

**VIII.G.2.** Deviations from the approved CAS Investigation Workplan, which are necessary during implementation, must be approved by the Administrative Authority and fully documented and described in the progress reports (Condition VIII.C), RECAP Report (Condition VIII.H) and the final Risk Management Plan (Condition VIII.J).

#### **VIII.H. RECAP REPORT**

Within ninety (90) days after completion of the site investigation the Permittee shall submit a RECAP Report to the Administrative Authority for approval. The RECAP Report shall document the results of the site investigation activities, and the evaluation of the impacts from releases. The Administrative Authority will review and evaluate the report and provide the Permittee with written notification of the report's approval or a notice of deficiency.

If the Administrative Authority determines the RECAP Report does not fully meet the objectives stated in the CAS Investigation Workplan (Permit Condition VIII.F), the Administrative Authority shall notify the Permittee in writing of the report's deficiencies, and specify a due date for submittal of a revised Final Report to the Administrative Authority.

**VIII.H.1.** The Permittee shall screen site-specific data using the appropriate RECAP standard (RS) for each AOI (depending on the MO), evaluate impacts from releases with exposure scenario evaluations, and update the Risk Management Profile of the CSM.

**VIII.H.2.** The report shall include, but not be limited to, the following:

**VIII.H.2.a.** Documentation of site investigation activities and results;

**VIII.H.2.b.** Evaluation of exposure scenarios to document impacts from releases;

**VIII.H.2.c.** Deviations from the CAS Investigation Workplan;

**VIII.H.2.d.** Results of screening activities using RECAP standards (RS), including SO, MO-1, MO-2, or MO-3 RS for each media;

**VIII.H.2.e.** The revised CSM with updated profiles which incorporate investigation and screening results; and

**VIII.H.2.f.** Proposed revisions to performance standards based on new information (e.g., change in land use, difference in expected receptors and/or exposure, or other differences in site conditions), if warranted.

#### **VIII.I. REMEDIAL ALTERNATIVES STUDY**

Upon completion and approval of the RECAP Report, the Permittee shall proceed with the evaluation of remedial alternatives to complete corrective action for each AOI according to the performance standards described in Condition VIII.A.2. The remedial alternatives shall be submitted to the Administrative Authority in the Remedial Alternatives Study (RAS) within ninety (90) days of the Administrative Authority's approval of the RECAP Report. In the Remedial Alternatives Study, the Permittee shall identify and evaluate various potential remedies that would meet the performance-based corrective action objectives and propose one or more specific remedies based on an evaluation of applicable data and available corrective action technologies. The RAS shall be prepared in a manner that addresses the extent and nature of the contamination at the facility.

**VIII.I.1.** The Permittee shall evaluate remedies for each AOI that shall:

**VIII.I.1.a.** attain compliance with corrective action objectives for releases of hazardous waste and/or hazardous constituents, as established in the Conceptual Site Model or in later investigations approved by the Administrative Authority;

**VIII.I.1.b.** control sources of releases;

**VIII.I.1.c.** meet acceptable waste management requirements;

**VIII.I.1.d.** protect human health and the environment; and

**VIII.I.1.e.** meet applicable statutory and regulatory requirements (as noted in Condition VIII.A.2.b).

**VIII.I.2.** The Permittee shall evaluate the use of presumptive remedies and innovative technologies to achieve the appropriate remedial performance standards for each AOI.

**VIII.I.3.** The Permittee shall review the current interim measures/ stabilization activities to evaluate if these measures meet all the criteria for final remedy.

**VIII.I.4.** If under certain site-specific conditions, or when it is not technically or economically feasible to attain the corrective action objectives, the Permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions upon approval of the Administrative Authority (Section 2.15 of RECAP).

**VIII.I.5.** The RAS shall at a minimum include:

**VIII.I.5.a.** An evaluation of the performance reliability, ease of implementation, and the potential impacts of the potential remedies;

**VIII.I.5.b.** An assessment of the effectiveness of potential remedies in achieving adequate control of sources and meeting remedial performance standards;

**VIII.I.5.d.** An assessment of the costs of implementation for potential remedies;

**VIII.I.5.e.** An assessment of the time required to begin and complete the remedy;

**VIII.I.5.f.** An explanation of the rationale for the remedy proposed for each AOI or group of AOIs; and

**VIII.I.5.g.** An assessment of institutional requirements (e.g., state permit requirements that may impact remedy implementation).



**VIII.I.6.** The Administrative Authority will review and evaluate the RAS and provide the Permittee with written notification of the study's approval or a notice of deficiency. If the Administrative Authority determines the RAS does not fully meet the requirements detailed in Conditions VIII.I.1 through VIII.I.5, the Administrative Authority shall notify the Permittee in writing of the RAS's deficiencies, and specify a due date for submittal of a revised RAS to the Administrative Authority. In addition, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

## **VIII.J. RISK MANAGEMENT PLAN**

Within ninety (90) days of the Administrative Authority's approval of the RAS, the remedy/remedies proposed for selection shall be documented and submitted in the Risk Management Plan. The Permittee shall propose corrective action remedies in accordance with Chapter IV of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A or as directed by the Administrative Authority.

**VIII.J.1.** The Risk Management Plan shall at a minimum include:

**VIII.J.1.a.** A summary of the remedial alternatives for each AOI and the rationale used for remedy selection;

**VIII.J.1.b.** The final CSM with proposed remedies, including locations of AOIs addressed by a risk management activity, COC concentrations that represent the long-term fate and transport of residual COCs and the exposure pathways affected by the risk management activity;

**VIII.J.1.c.** Cost estimates and implementation schedules for proposed final remedies;

**VIII.J.1.d.** Proposed remedy design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, property access, easements and right-of-way requirements, special health and safety requirements, and community relations activities;

**VIII.J.1.e.** Remedy performance criteria and monitoring:

The Permittee shall identify specific criteria (such as land use changes, fate and transport model verification and constructed remedy performance) that will be evaluated to demonstrate that the risk management activity implemented will remain protective. A schedule for periodic performance review (such as monitoring data summaries, including graphical and statistical analyses) shall be established to demonstrate that the implemented activities are consistently achieving and maintaining desired results. Further, a mechanism shall be established to re-evaluate risk management activities in the event the implemented action does not achieve and maintain the performance standards;

**VIII.J.1.f. Contingency plans; and**

**VIII.J.1.g. Description and schedules for performance reviews.**

**VIII.J.2.** After the Permittee submits the Risk Management Plan, the Administrative Authority will review and evaluate the plan and subsequently either inform the Permittee in writing that the plan is acceptable for public review or issue a notice of deficiency.

**VIII.J.3.** If the Administrative Authority determines the Risk Management Plan does not fully meet the remedial objectives, the Administrative Authority shall notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of a revised Final Risk Management Plan. In addition, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

**VIII.J.4.** After the Administrative Authority has determined the Risk Management Plan is acceptable for public review, the Administrative Authority shall inform the Permittee in writing and instruct the Permittee to submit the plan as a Class 3 permit modification request in accordance with the requirements of LAC 33:V.321.C.3.

**VIII.J.5.** After conclusion of a 60-day comment period, the Administrative Authority will either grant or deny the Class 3 permit modification request. In addition the Administrative Authority must consider and respond to all significant comments received during the 60-day comment period.

**VIII.J.6.** If the Class 3 Modification request is granted, the Administrative Authority shall prepare a draft permit incorporating the proposed changes in accordance with LAC 33:V.703.C and solicit public comment on the draft permit modification according to Condition VIII.N.3 of this permit.

**VIII.J.7.** If, after considering all public comments, the Administrative Authority determines that the Risk Management Plan is adequate and complete, the Administrative Authority will issue a public notice for final approval the Class 3 permit modification. The resultant modified permit will include schedules for remedy implementation as well as financial assurance provisions as required by Condition VIII.A.5 of this permit.

## **VIII.K. DETERMINATION OF NO FURTHER ACTION**

### **VIII.K.1. NFA-ATT DETERMINATIONS FOR SPECIFIC SWMUs/AOCs**

**VIII.K.1.a.** Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may request a NFA-ATT determination for a specific SWMU/AOC by submittal of a Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) request under LAC 33:V.321.C.1. The NFA-ATT request must contain information demonstrating that there are no releases of hazardous constituents from a

particular SWMU/AOC that pose a threat to human health and/or the environment.

The basis for the determination of NFA-ATT shall follow the guidelines as described in the RECAP (Section 1.2.1 of RECAP) for each AOI, depending on the MO used.

**VIII.K.1.b.** If, based upon review of the Permittee's request for a permit modification, the results of the site investigations, and other information the Administrative Authority determines that releases or suspected releases from an individual SWMU/AOC which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

**VIII.K.1.c.** In accordance with LAC 33:V.321.C.1.a.ii, the Permittee must notify the facility mailing list within ninety (90) days of the Administrative Authority's approval of the Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) request.

#### **VIII.K.2. FACILITY-WIDE NFA-ATT DETERMINATION**

**VIII.K.2.a.** Upon the completion of all activities specified in the Risk Management Plan and after all SWMUs and AOCs at the facility have been remediated according to the standards dictated by the selected RECAP MO, the Permittee shall submit a summary report supporting a determination of NFA-ATT on a facility-wide basis.

**VIII.K.2.b.** The summary report must include a historical narrative for each SWMU/AOC at the site that includes a summary of the investigation, sampling & analysis, remedial, and confirmatory sampling activities leading to the NFA-ATT request. The basis for the determination of NFA-ATT shall follow the guidelines as described in the RECAP (Section 1.2.1 of RECAP) for each AOI, depending on the MO used. The facility-wide NFA-ATT determination must consider any newly-identified SWMUs/AOCs discovered after submittal of the Risk Management Plan.

**VIII.K.2.c.** The Administrative Authority will review and evaluate the summary report and subsequently either inform the Permittee in writing that the report is acceptable for public review or issue a notice of deficiency.

**VIII.K.2.d.** If the Administrative Authority determines the summary report does not fully demonstrate that all remedial objectives have been satisfied, the Administrative Authority shall notify the Permittee in writing of the summary report's deficiencies and specify a due date for submittal of a revised summary report.

**VIII.K.2.e.** After the Administrative Authority has determined the facility-wide NFA-ATT summary report is acceptable for public review, the Administrative Authority shall inform the Permittee in writing and instruct the Permittee to submit the summary report as a Class 3 permit modification request in accordance with the requirements of LAC 33:V.321.C.3.

**VIII.K.2.f.** After conclusion of a 60-day comment period, the Administrative Authority will either grant or deny the Class 3 permit modification request. In addition the Administrative Authority must consider and respond to all significant comments received during the 60-day comment period.

**VIII.K.2.g.** If, based upon review of the Permittee's Class 3 permit modification request, the results of the site investigations, confirmatory sampling, and other pertinent information, the Administrative Authority determines that all SWMUs and AOCs have been remediated to the selected MO and no further action at the facility is warranted, the Administrative Authority will grant the modification request.

**VIII.K.2.h.** If the Class 3 Modification request is granted, the Administrative Authority shall prepare a draft permit incorporating the proposed changes in accordance with LAC 33:V.703.C and solicit public comment on the draft permit modification according to Condition VIII.N.4 of this permit.

**VIII.K.2.i.** If, after considering all public comments, the Administrative Authority determines that all activities specified in the Risk Management Plan have been completed and that all SWMUs and AOCs have been remediated to the selected MO, the Class 3 permit modification for facility-wide NFA-ATT will receive final approval. The CAS permit conditions will remain a part of the modified permit in the event that the remedial actions taken fail to maintain the established performance standard and to address any SWMUs/AOCs discovered at a later date.

### **VIII.K.3. CONTINUED MONITORING**

If necessary to protect human health and/or the environment, a determination of NFA ATT shall not preclude the Administrative Authority from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

### **VIII.K.4. ADDITIONAL INVESTIGATIONS**

A determination of NFA-ATT shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU/AOC at the facility that is likely to pose a threat to human health and/or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to LAC33:V.321.

## **VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs**

**VIII.L.1.** The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMUs and potential AOCs (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) days after discovery. The Permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

**VIII.L.1.a.** The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs/AOCs);

**VIII.L.1.b.** The type and function of the unit;

**VIII.L.1.c.** The general dimensions, capacities, and structural description of the unit (supply any available drawings);

**VIII.L.1.d.** The period during which the unit was operated;

**VIII.L.1.e.** The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and

**VIII.L.1.f.** Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU/AOC.

**VIII.L.2.** Based on the information provided in the notification, the Administrative Authority will determine whether or not the area is a newly-identified SWMU or AOC. If the area is determined to be a newly-identified SWMU or AOC, the Administrative Authority will inform the Permittee in writing and request that the Permittee submit a Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) request under LAC 33:V.321.C.1 to add the newly-identified SWMU/AOC to Appendix 1, Table 1 of this permit.

Further, the Administrative Authority will determine the need for further investigations or corrective measures at any newly identified SWMU or AOC. If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. The plan for investigation of SWMU or AOC will be reviewed for approval as part of the current CAS Investigation Workplan or a new CAS Investigation Workplan. The results of the investigation of any newly-discovered SWMU/AOC shall be incorporated into the CSM.

#### **VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT A SWMU OR AOC**

The Permittee shall notify the Administrative Authority of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. The notification must be in accordance with the procedures specified in Conditions II.E.16 through II.E.20 of this permit and based upon the nature, extent, and severity of the release. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the CSM, completed RECAP Report, or investigation of an AOC, the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification.

The Administrative Authority may require further investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the CAS Investigation Workplan or a new CAS Investigation Workplan. The Permit will be modified to incorporate the investigation, according to the Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) procedures under LAC 33:V.321. The results of the investigation of any newly-identified release(s) shall be incorporated into the CSM.

#### **VIII.N. PUBLIC PARTICIPATION REQUIREMENTS**

Public participation is an essential element in the implementation of any corrective action program at the facility. The CAS promotes the early and continued involvement of stakeholders in site remediation activity during permit issuance, renewal, or modification. The public is invited to review and comment on the corrective action requirements contained in any draft permitting decisions or draft permit modification documents and the associated plans and reports submitted by the Permittee. The Administrative Authority reserves the right to require more extensive public participation requirements based upon site-specific conditions and other relevant factors (e.g., compliance history, potential offsite impact, community interest, etc.). At a minimum, the public participation requirements shall include the following.

### **VIII.N.1. NFA-ATT Determinations for Specific SWMUs/AOCs**

Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may request a NFA-ATT determination for a specific SWMU/AOC by submittal of a Class 1<sup>1</sup> permit modification request (<sup>1</sup> requiring Administrative Authority approval) under LAC 33:V.321.C.1. The Permittee must notify the facility mailing list within 90 days of the Administrative Authority's approval of the Class 1<sup>1</sup> permit modification request, in accordance with LAC 33:V.321.C.1.a.ii and Condition VIII.K.1.c of this permit.

### **VIII.N.2. Draft Permitting Decision**

The public may review and comment on the terms and conditions of the CAS during the public notice and comment period of the draft permitting decision. The Administrative Authority shall issue public notice upon preparation of the draft permitting decision in accordance with LAC 33:V.715. During the forty-five (45) day public comment period, the Administrative Authority will accept public comments on the draft permitting decision. At the end of the public comment period, the Administrative Authority will consider and address all public comments and make any necessary revisions to the draft permitting decision. After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permitting decision. The final permitting decision will include a "Responsiveness Summary" detailing all comments received on the draft permitting decision and the actions taken (if necessary) to correct the draft before issuance of the final permitting decision.

### **VIII.N.3. Final Remedy Selection**

The public may review and comment on the terms and conditions of the Risk Management Plan as described in Conditions VIII.J.4 through VIII.J.7 of this permit. If after addressing all public comments the Administrative Authority determines that the Risk Management Plan is satisfactory, the Administrative Authority will prepare a draft permit modification document in accordance with LAC 33:V.703.C.

The draft permit modification document will include a "Basis of Decision". The "Basis of Decision" will identify the proposed remedy for corrective action at the site and the reasons for its selection, describe all other remedies that were considered, and solicit for public review and comments on the Risk Management Plan included in the draft permit modification document.

After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permit modification. The final permit modification will include a "Responsiveness Summary" detailing all comments received on the draft permit modification and the actions taken (if necessary) to correct the draft before issuance of the final permit modification.

#### **VIII.N.4. Facility-Wide NFA-ATT**

Upon the completion of all activities specified in the Risk Management Plan and after all facility remedial objectives have been met, the Permittee may submit a summary report for a determination of NFA-ATT on a facility-wide basis in accordance with Condition VIII.K.2 of this permit. The public may review and comment on the summary report as described in Condition VIII.K.2.b. If after addressing all public comments the Administrative Authority determines that all SWMUs and AOCs have been remediated to the selected MO and no further action at the facility is warranted, the Administrative Authority will prepare a draft permit modification document in accordance with LAC 33:V.703.C.

The draft permit modification document will include a "Basis of Decision". The "Basis of Decision" will provide a summary detailing contamination sources, site investigations, the MO selected for the facility, facility remedial standards, remedial actions, and sampling results demonstrating that the facility remedial standards have been achieved.

After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permit modification. The final permit modification will include a "Responsiveness Summary" detailing all comments received on the draft permit modification and the actions taken (if necessary) to correct the draft before issuance of the final permit modification.



**Table 1: Corrective Action Strategy Notification and Reporting Requirements**

Below is a summary of the major notifications and reports that may be required by the Administrative Authority under the Corrective Action Strategy of this Permit in the event of releases requiring RCRA corrective action. The Administrative Authority will notify the Permittee of the notification and reporting requirements during the scoping meeting or another applicable stage of the corrective action process.

ACTION	DUE DATE
Submit Notice of Intent to request use of the CAS to the Administrative Authority for review and comment (Condition VIII.B.1)	Within sixty (60) days of the effective date of this permit (if facility corrective action is required)
CAS Scoping Meeting held between facility and Administrative Authority (Condition VIII.B.2)	Within sixty (60) days of submittal of the Notice of Intent
Submit Progress Reports on all activities to the Administrative Authority (Condition VIII.C.1)	Schedule to be determined by the Administrative Authority on a case-by-case basis
Make available other reports relating to corrective action to the Administrative Authority (Condition VIII.C.2)	Upon request of the Administrative Authority
Provide briefings to the Administrative Authority (Condition VIII.C.3)	As necessary and upon request by the Administrative Authority
Submit Conceptual Site Model (CSM) (Condition VIII.D) and facility Performance Standards (Condition VIII.A.2) to the Administrative Authority	Within one-hundred and twenty (120) days after the scoping meeting
Perform Interim Measures (Condition VIII.E)	As determined by the Administrative Authority on a case by case basis
Submit Corrective Action Strategy (CAS) Workplan for the facility investigation to the Administrative Authority (Condition VIII.F)	Within one-hundred and eighty (180) days after the CAS Scoping Meeting
Implement site investigation activities under CAS Investigation Workplan according to approved schedule (Condition VIII.G)	Within fourteen (14) days of receipt of approval by the Administrative Authority
Submit RECAP Report to the Administrative Authority (Condition VIII.H)	Within ninety (90) days of completion of the site investigation
Submittal of Remedial Alternatives Study (RAS) to the Administrative Authority (Condition VIII.I)	Within ninety (90) days of completion of approval of the RECAP Report by the Administrative Authority
Submit Risk Management Plan to the Administrative Authority (Condition VIII.J)	Within sixty (90) days of approval of the RAS by the Administrative Authority
Submit requests for unit specific and facility-wide NFA-ATT determinations to the Administrative Authority (Condition VIII.K)	As necessary
Notification of newly-identified SWMUs and potential AOCs (Condition VIII.L)	Thirty (30) days after discovery
Notification of newly-discovered releases (Condition VIII.M)	According to the requirements of Conditions II.E.16 through II.E.20 of this permit

## APPENDIX 1: SUMMARY OF CORRECTIVE ACTION ACTIVITIES

Colfax Treating Company, LLC currently has ongoing corrective action responsibilities at the facility. In the event any new AOCs or SWMUs are discovered, Appendix 1 will be modified in accordance with Condition VIII.M.

**TABLE 1. SUMMARY OF CORRECTIVE ACTION ACTIVITIES**

<i>AOC or SWMU</i>	<i>AOC/SWMU Description</i>	<i>CA Activity</i>	<i>Document Date</i>
SWMU 1	Closed Chatlin Lake Canal (including offsite areas to the east and west)	Closure Certification	10-27-1986
SWMU 2	Closed Vacuum Pump Cooling Water Pond	Closure Certification	10-27-1986
AOC 1	Technical Unit 4 - Three 100,000 gallon creosote tank area (tanks no longer present)	RFI Final Report	3-15-2000
AOC 5	Technical Unit 5 - Hynson Bayou Area (contamination see page in bayou near bridge of plant's NW road)	RFI Final Report	3-15-2000
AOC 6	Technical Unit 6 - Offsite Chatlin Lake Canal-East and West End Continuance	RFI Final Report	3-15-2000 (RFI Addendum Pending)
SWMU 3	Temporary Treated Wood Storage Area (Treated Wood Pad)	NFA	9-1-1998
SWMU 4	Primary Oil Water Separator	NFA	9-1-1998
SWMUs 5,6,7	Concrete Sumps at Front of Treatment Cylinders (3)	NFA	9-1-1998
SWMU 14	Main Separator Sump	NFA	9-1-1998
SWMU 15	Sump Inside Treatment Building	NFA	9-1-1998
SWMU 16	Above-ground Railroad Car Separator	NFA	9-1-1998
SWMU 17	Floc Tank and Sump (2)	NFA	9-1-1998
SWMU 18	Wastewater Outfall Oil Separator Sump	NFA	9-1-1998
SWMU 19	Treated Wood Drying Pad	NFA	9-1-1998
SWMU 20	"White Wood" Landfill	NFA	8-15-2005
AOC 4	Truck Unloading Pad	NFA	9-1-1998

# **ATTACHMENT 1**

**ATTACHMENT 1**  
**LIST OF FACILITY DOCUMENTS INCORPORATED**  
**IN THE PERMIT BY REFERENCE**  
**LAD069524981 AI# 97707**

DOCUMENT TYPE	DOCUMENT DATE	EDMS DOCUMENT ID #	COMMENTS
Arrangements with local authorities	5/11/2004	31939435	Arrangements with local police and fire departments, local hospital and emergency response teams to assist in emergency response process. Appendix L of the Post-Closure Renewal Permit Application
Post-Closure cost estimates	5/11/2004	31939435	Information regarding the cost estimates can be found in Appendix K
Post-Closure Plan	5/11/2004	31939435	These plans are identified in Appendix K of the Post - Closure Renewal Permit Application.
Contingency Plan	7/11/2005	33091050	This revised plan identifies an integrated contingency plan that contains the inspection, security, training and operating records plans. Located in Hazardous Waste Post-Closure Permit Renewal Application Response to Notice of Deficiencies - Attachment 10.
Inspection Plan	5/11/2004	31939435	Inspection information is part of the Post-Closure Plan located in Appendix K of the Hazardous Waste Post-Closure Permit Renewal Application.
Security Plan	5/11/2004	31939435	Security is discussed in the Post -Closure Plan, located in Appendix K of the Post-Closure Renewal Permit Application.
Personnel Training Plan	7/11/2005	33091050	This revised plan, located in Attachment 11 of the Post-Closure Renewal Permit Application Response to Notice of Deficiencies, documents the training required of personnel involved with the facility.
Waste Analysis Plan	5/11/2004	31939435	The Waste Analysis Plan located in the RCRA Contingency Plan's Attachment 1, is designed to satisfy the general waste analysis standards outlined in LAC 33:V.1519.
Revised Groundwater Sampling and Analysis Plan	7/11/2005	33091050	This document is located in Attachment 2 of the Hazardous Waste Post-Closure Permit Renewal Application Response to Notice of Deficiencies. The Plan reflects the monitoring requirements of LAC 33:V. Chapter 33.
Corrective Action Strategy Notice of Intent	7/10/2006	34418136	This document is the facility's Notice of Intent to conduct corrective action in accordance with the standards and conditions of the Corrective Action Strategy.